

WATER AUTHORITY

WASTEWATER OPERATIONS

Pretreatment ■ SSE/R ■ Utility Maintenance ■ Wastewater Operations
1502 Brownlee Ave. S.E., Roanoke, VA 24014

January 28, 2009

Mr. Kip Foster Water Permit Manager Department of Environmental Quality 3019 Peters Creek Road Roanoke, VA 24019

Subject: Sludge Generator

Dear Mr. Foster:

This letter is to convey changes to the Western Virginia Water Authority's VPDES Permit. The Town of Buchanan has submitted a request to dispose of sewage sludge at our facility from its Sewage Treatment Plant on Route 43 in Buchanan the sludge generated is of domestic origin. The Town of Buchanan estimates that they will produce 3,000 gallons of sludge every 6 weeks, according to the calculations (see attached) that equates to approximately 1.573 dry metric tons/year.

If you have questions or need additional clarification of the above information, please contact me at (540)853-1517.

Sincerely,

Janis M. Richardson,

Environmental Programs Coordinator

File

Cc: ss

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UTILITY ADMINISTRATION

November 26, 2008

Ms. Becky L. France
Environmental Engineer Senior
West Central Regional Office
Virginia Department of Environmental Quality
3019 Peters Creek Road
Roanoke, VA 24019



Re: Water Pollution Control Plant Permit Application Supplemental Information, VPDES Permit No. VA0025020

Dear Ms. France:

Enclosed for your use in preparing the VPDES permit for the Western Virginia Water Authority Water Pollution Control Plant are the revised pages of the VPDES permit reissuance Application Addendum for the Western Virginia Water Authority Water Pollution Control Plant as well as copies of the laboratory reports for the additional chloride, dissolved copper, and dissolved zinc monitoring performed for this facility. This information was provided to better reflect future facility flows and to provide a more comprehensive characterization of the effluent quality to support the evaluations of the need for permit limits for these pollutants. A summary of the materials provided is as follows:

- 1. <u>VPDES Permit Application Addendum</u>: Pages 2 and 3 of the Addendum were revised to reflect flow tiers 67 million gallons per day (MGD) and 72 MGD. The Application Addendum is included as Attachment A.
- 2. Additional Chloride Monitoring: Chloride monitoring was initially conducted in October 2007 in accordance with the VPDES permit Water Quality Criteria monitoring requirement. Additional monitoring was performed from October 29, 2008 through November 21, 2008 to provide additional data to support the evaluation of the need for permit limits. During this nine-day period, 24-hour final effluent composite samples were collected by Authority staff for analysis by REI Consultants, Inc. The results of the cumulative final effluent chloride analyses are summarized in Table 1 below; the laboratory reports from are included in Attachment B.

Table 1. Chloride Results Summary

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Sample No.	Sampling Dates	Chloride (mg/L)		
1	10/07	102 mg/L*		
2	10/29/08-10/30/08	111 mg/L		
3	10/30/08-10/31/08	106 mg/L		
4	10/31/08-11/1/08	104 mg/L		
5	11/1/08-11/2/08	104 mg/L		
6	11/2/08-11/3/08	82.5 mg/L		
7	11/3/08-11/4/08	88 mg/L		

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8	11/4/08-11/5/08	96 mg/L
9	11/5/08-11/6/08	95.5 mg/L
10	11/6/08-11/7/08	94.5 mg/L



*Indicates Water Quality Criteria monitoring from 2007.

Using the DEQ STATS program with the Waste Load Allocation (WLA) data from the MSTRANTI tables with background chloride data provided to Olver Incorporated on November 5, 2008, we calculated that no chloride limits would be needed for any of the flow tiers (55 MGD, 62 MGD, 67 MGD, and 72 MGD).

3. Additional Dissolved Copper and Dissolved Zinc Monitoring: Initial dissolved copper and dissolved zinc monitoring was performed in October 2007 in accordance with the VPDES permit Water Quality Criteria monitoring requirement. This monitoring was performed using standard sample collection and analysis techniques. In light of the strong potential for sample contamination during the collection and analysis process, and as referenced in your initial data review correspondence and discussed in our preapplication meeting, dissolved copper and zinc monitoring was repeated using "clean" sampling and analyses techniques to reduce the potential for contamination. Accordingly, a clean metals sampling program developed with the assistance of Hampton Roads Sanitation District (HRSD). Samples for dissolved copper and dissolved zinc were collected over a 10-day period from October 28, 2008 through November 7, 2008 using the clean sampling equipment and procedures provided by HRSD. Since the sampling protocol minimizes the potential for contamination, twenty-four hour composite samples were collected to provide data that is more representative of the actual discharge than grab samples. This approach has been used by other permitted facilities for permit limits evaluations and is consistent with your prior discussions with Olver Incorporated. The results are summarized in Table 2 and copies of the laboratory reports are provided in Attachment C.

Table 2. Clean Metals Sampling Results

Sample No.	Sampling Dates	Dissolved Copper (µg/L)	Dissolved Zinc (µg/L)
1	10/28/08-10/29/08	4.7 μg/L	15.8 μg/L
2	10/29/08-10/30/08	4.9 μg/L	16.3 μg/L
3	10/30/08-10/31/08	5.5 μg/L	19.5 μg/L
4	10/31/08-11/1/08	5.3 μg/L	23.6 μg/L
5	11/1/08-11/2/08	5.7 μg/L	20.7 μg/L
6	11/2/08-11/3/08	5.8 μg/L	17.7 μg/L
7	11/3/08-11/4/08	6.1 μg/L	18.4 μg/L
8	11/4/08-11/5/08	6.4 μg/L	23.3 μg/L
9	11/5/08-11/6/08	6.3 μg/L	22.4 μg/L
10	11/6/08-11/7/08	6.6 μg/L	20.6 μg/L

In recognition of the potential for contamination, the 2007 Water Quality Criteria monitoring results for copper and zinc should not be included in the evaluation of the need for permit limits because they were not sampled using clean techniques. Using the DEQ STATS program with the Waste Load Allocation (WLA) data from the MSTRANTI tables with background metals data provided to Olver Incorporated on November 5, 2008, we calculated that limits for copper and zinc would not be needed for any of the flow tiers (55 MGD, 62 MGD, 67 MGD, and 72 MGD).

We look forward to receipt of the draft permit and fact sheet and we remain available to answer any questions that you may have regarding these or other matters.

I certify under penalty of law that this document and all attachments were prepared under ection or supervision in accordance with a system designed to assure that one of the properly gather and evaluate the information submitted. Record to the information submitted to the information submitted. my direction or supervision in accordance with a system designed to assure that qualified DEO personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including possibility of fines and imprisonment for knowing violations.

Sincerely,

Michael T. McEvoy

Executive Director-Wastewater Services

Michael T. Mize

MTM/ **Enclosures**

S. Scott Shirley, Director of Wastewater Operations, Western Virginia Water Authority (w/encl.) Janis Richardson, Environmental Programs Coordinator, Western Virginia Water Authority Marty Sensabaugh, Wastewater Operation Manager, Western Virginia Water Authority (w/encl.)

Lawrence Hoffman, Director of Environmental Services, Olver Incorporated



WASTEWATER OPERATIONS

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September 24, 2008

Ms. Becky France Environmental Engineer 3019 Peters Creek Road Roanoke, Virginia 24019

Subject:

Roanoke VPDES Permit VA0025020

Request Regarding Additional Temperature Data

SEP 2 4 2008
DEQ-WCRO

Dear Ms. France:

Please find attached a CD with the requested river temperature data in electronic format. Please let me know if you need any additional information. Thanks.

Sincerely,

S. Scott Shirley

Director of Wastewater Operations

cc: Mr. Marty Sensabaugh, Superintendent, WPCP Operations (Permit File)

1540 Underhill Ave.

Roanoke, VA 24014 Email: sc

Email: scott.shirley@westernVAwater.org

Telephone: (540) 853-1283

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WASTEWATER OPERATIONS

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September 22, 2008

Ms. Becky L. France West Central Regional Office Department of Environmental Quality 3019 Peters Creek Road Roanoke, Virginia 24019-2738



Re: VPDES Permit No. VA0025020- VPDES Permit for Reapplication

Dear Ms. France:

The Authority is in receipt of your letter dated September 5, 2008 and received on September 8, 2008 regarding the Roanoke Regional WPCP permit reapplication package. correspondence, you have indicated that you deem the application incomplete based upon three "deficiencies" noted in the letter. The Authority is in strong disagreement with the determination that an incomplete application package was submitted. This letter is intended to address and respond to each of the matters which you noted in the hopes of obtaining additional information about the intent of your communication.

The first item noted in you/correspondence was related to the lack of data for stormwater outfalls 007 and outfall 008. With the recent rainfall events, the sampling for these outfalls has been completed and the appropriate supporting documents and forms are attached to this letter. This particular issue was discussed during the pre-application submittal meeting and facility tour held with both you and Mr. Kip Foster on August 14, 2008. At that time we shared the challenges related to obtaining all samples while the region has been in a substantial drought as well as other factors which we believe were pertinent considerations and requested consideration of additional time to complete sampling. This matter was further discussed in the conveyance letter included with the permit application package. We believe that this situation fits within the intent described in the DEQ Permit Writers Manual, page II-13 regarding Minor deficiencies as well and DEQ Permit Writers Manual, page II-18 regarding appropriate extensions. Your letter does not provide specific detail regarding the classification of this deficiency and whether it is being We would appreciate additional explanation on this particular item deemed a violation. including discussion of approval or denial of the requested extension. If the intent was to just note the need for this information within the package and not address the extension, we would appreciate consideration of an extension to the date of this submittal.

We are further confused related to the two additional items which appear to be noted as deficiencies. We believe that these items may have been unintentionally miscategorized in the letter. Both items appear to be a request for additional information and clarification of submitted information as opposed to a deficiency which would contribute to a classification of the application being incomplete.

The second item presented references the VPDES Permit Application Addendum, Section C.3 and the future flow tiers for the facility. Specifically, the comment made in your letter questions the need for the 72 MGD flow tier. As you are probably aware, the Authority has entered into a Special Order by Consent with the Department (VA DEQ) regarding wet weather overflows in the collection system. As a component of this comprehensive process, several projects and studies have been completed to develop a Corrective Action Plan which has been submitted to WCRO. The 72 MGD flow tier referenced in the permit is directly related to long term planning to address wet weather capacity needs of the facility and projects planned for the upcoming permit term. This matter was covered in some detail at the pre-submittal meeting and we shared the current study underway by Dr. Ron Benson to further refine plans for addressing wet weather conditions. Further, this flow tier has been a point of discussion for a number of years and can be found in permit communications which occurred prior to the late 1990s expansion of the More specific details on this matter can be found in multiple studies and correspondence to DEQ WCRO. These items include the Collection System Evaluation Study and the Corrective Action Plan.

The third item referenced in the letter was related to the Sewage Sludge Application Form, Section B.2.e. Specifically, the comment appears to question the dry tonnage reported by the Catawba Hospital WWTP when compared to other facilities listed. To complete this section of the application, the facilities listed are requested to provide a maximum anticipated amount of material which could be received by the Roanoke Regional WPCP. These figures are presented to us in gallons which staff then convert to a dry tonnage for purpose of the application. Our intent is to recognize the maximum annual volume of materials which could be received from a listed entity. Because of the emergency component of this information as well as relying on input from a third party, we feel more comfortable with an very conservative approach to the figure. Although we do acknowledge that, to our knowledge, none of the smaller facilities has approached the levels of material we list as possible. If DEQ-WCRO has more specific information from the Catawba facility, we would be happy to discuss if a lower quantity should be considered.

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Roanoke, VA 24014 Email: scott.shirley@westernVAwater.org As previously mentioned, we believe that likely intent of the letter was to categorize the later two items as a request for additional information and not deficiencies in the application. We would appreciate clarification on this matter. We are currently working to produce the electronic temperature data requested in your letter. The form of the data was not readily available in an electronic format which would be useful, so our staff are working to modify it for easier use. In closing, we are pleased to have the opportunity to respond on this matter and hope that we can obtain a better understanding of the original communication. We look forward to your response.

Sincerely,

S. Scott Shirley

Director of Wastewater Operations

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c: Kip Foster, DEQ-WCRO Michael T. McEvoy, Executive Director of Wastewater Services Ronald E. Benson, Jr., Ph.D., P.E., Senior Vice President/Principal, Hole Montes R. Lawrence Hoffman, Director of Environmental Services, Olver Incorporated Christopher D. Pomeroy, Esq., AquaLaw PLC Marty Sensabaugh, Superintendent, WPCP Operations Janis Richardson, Regional Pretreatment Coordinator WVWA File



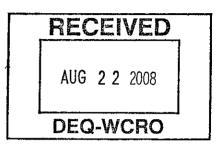


WASTEWATER OPERATIONS

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August 22, 2008

Ms. Becky L. France Environmental Engineer Senior West Central Regional Office Virginia Department of Environmental Quality 3019 Peters Creek Road Roanoke, VA 24019



HAND DELIVERED

Re:

VPDES Permit Reissuance Application,

VPDES Permit No. VA0025020

Dear Ms. France:

Enclosed are the original and three copies of the Virginia Pollutant Discharge Elimination System (VPDES) permit reissuance application for the Western Virginia Water Authority Water Pollution Control Plant. By copy of this letter, a copy is also forwarded to the Virginia Department of Health Office of Water Programs Environmental Engineering Field Office. This submittal includes the following documents:

- 1. EPA Form 2A.
- 2. EPA Form 2F.
- 3. VPDES Sewage Sludge Permit Application Form,
- 4. DEQ Application Addendum.

We understand that the waiver requests submitted with the draft application documents on June 2 have been accepted by the Department of Environmental Quality and the U.S. Environmental Protection Agency. These application documents reflect the approved waiver requests.

As requested, the application also includes copies of the Outfall 001 effluent analyses laboratory reports used to prepare the Form 2A application, a copy of the Outfall 009 storm water analysis laboratory report used to prepare the Form 2F application and copies of the spreadsheet containing the Outfall 001 effluent temperature used to prepare the Form 2A application.

As discussed in our August 14, 2008 pre-application meeting and facility walkover, we believe the former storm water Outfall 005 drainage basin no longer includes the reasonable potential for pollutant exposure to storm water. As such, we have excluded this outfall from the application and will be providing the

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Roanoke, VA 24014

requested no exposure certification in the near future. In addition, the location of former storm water discharge point Outfall 007 was moved slightly as a result of the recently completed Water Pollution Control Plant improvements. While the current drainage basin for this outfall is similar, the change in location may necessitate a change in the outfall designation for the reissued permit. The Form 2F application includes storm water data for Outfall 009. The ongoing drought conditions have impacted efforts to complete sampling events for Outfalls 007 and 008. As discussed during the application presubmittal meeting and facility tour, the current stormwater system at the facility does not generate discharges for smaller rain events which has compounded the effects of the drought conditions. While the elimination of discharges for smaller rain events is problematic for sampling, we believe that this represents a significant water quality improvement. We will continue our efforts to collect the samples and provide data for these outfalls as soon as possible. Based upon the discussions at the pre-submittal meeting, it may be necessary to place the sampling requirements for these outfalls as a future permit condition in light of the drought.

The Authority is currently performing a maximum treatment capacity determination study to demonstrate the improved facility's ability to handle high flow events, establish the actual treatment capacity of the unit processes, and to identify additional facility improvements needed to obtain the requested increased flow tiers. Upon completion, we will discuss with DEQ the results of the evaluation and the Authority's plans and schedule for implementing the additional improvements.

Based on the information provided in the reapplication meeting, the Authority is in the process of implementing a clean sampling program to provide data for a re-evaluation of the need for copper and zinc limits. We will provide the results of this monitoring as it becomes available. Similarly, we may provide additional chloride data to support the evaluation of the need for chloride limits.

The application documents are submitted with the following requests:

- 1. Flow Tiers: As for the previous application, the Authority requests that the reissued permit include the 55 MGD and 62 MGD tiers included in the current permit as well as a third tier of 72 MGD. As indicated previously, the Authority is currently performing a treatment capacity determination evaluation and will provide the results for DEQ review and use in the near future.
- 2. <u>Elimination of Instream Dissolved Oxygen Study Requirement</u>: The VPDES permit issued in 1999 and in 2004 required the performance of instream dissolved oxygen monitoring anytime between June 15 and October 15 when river flows are less than 1.5 times the 7Q10 value or when the river temperature is greater than 25°C. These criteria were observed and the Authority conducted studies in 2001, 2002, and 2003. The results of these studies indicated that the instream dissolved oxygen levels remained well above the water quality standard. Since these studies were performed, the Authority has improved the treatment plant efficiency and capacity with corresponding improvements in effluent quality. As such, we believe that the continued performance of these studies is no longer necessary.
- 3. <u>Local Limits Evaluation</u>: The Authority is currently reevaluating the local limits and requests that the local limits reevaluation requirement typically included in reissued VPDES permits be excluded from the Authority's reissued permit.

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- 4. <u>PCBs Monitoring</u>: The Authority requests that the special condition for voluntary PCBs monitoring not be included in the reissued VPDES permit pending the completion of the Roanoke River PCBs TMDL and the approval of the sampling and analytical methodologies.
- 5. Hexavalent Chromium Monitoring: The current VPDES permit includes a quantification level (QL) requirement of 3.3 μg/L for hexavalent chromium. The permit limits for the 55 MGD tier are 7.1 μg/L (monthly average) and 8.7 μg/L (weekly average). For the 62 MGD tier, the limits are 6.9 μg/L (monthly average) and 8.5 μg/L (weekly average). In light of the short holding time (24-hours) for this parameter and the lack of local laboratories capable of meeting this QL, we request that the QL in the reissued permit be changed to 5.0 ug/L. This will enable to Authority's laboratory to perform this analysis while providing data to demonstrate compliance with the permit limits.
- 6. <u>Stormwater Sampling Requirement</u>: The Authority will continue efforts to complete the required stormwater sampling prior to re-issuance of the VPDES permit. Based upon current drought projections, it should be recognized that completion of the sampling event may not occur due to circumstances beyond our control. If an appropriate sampling event is not experienced prior to permit re-issuance, we request that the stormwater sampling be included as additional monitoring within the permit term.

We appreciate your sincere consideration of these requests and we will provide the additional metals information as it becomes available. As always, please do not hesitate to contact me should you have any questions or require any additional information.

Sincerely,

S. Scott Shirley

Director of Wastewater Operations

SSS/

Enclosures

Virginia Department of Health Office of Water Programs Environmental Engineering Field Office (w/encl.)
Michael McEvoy, Executive Director-Wastewater Services, Western Virginia Water Authority (w/encl.)
Janis Richardson, Environmental Programs Coordinator, Western Virginia Water Authority
Marty Sensabaugh, Wastewater Operation Manager, Western Virginia Water Authority
Ronald E. Benson, Jr., Ph.D., P.E., Senior Vice President/Principal, Hole Montes (w/encl.)
R. Lawrence Hoffman, Director of Environmental Services, Olver Incorporated
Christopher D. Pomeroy, Esq., AquaLaw PLC

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